

3alkyl, or C<sub>1-3</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, or phenyl which can be unsubstituted or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl, or substituted on nitrogen with C<sub>1-4</sub>alkoxy or phenyl which can be unsubstituted or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl;

n is 2 to 4;

m is 0, 1 or 2

and any pharmaceutically acceptable salt or solvate thereof in a pharmaceutically acceptable carrier.

Pursuant to 37 C.F.R. 1.121(c)(1)(ii) a "marked-up" version of the amendments is attached to this Amendment.

#### REMARKS

Claims 1, 2, 5, 6, 9, 10, 13, 14, 39, 40, 43, 44, and 47 are pending. (Claims 3, 4, 7, 8, 11, 12, 15, 16, 19, 20, 23, 24, 27-33, 35-38, 41, 42, 45, 46, 48, and 49 are withdrawn.) Claims 17, 18, 21, 22, 25, 26, and 34 have been cancelled.

Claims 1, 2, 5, 6, 9, 10, 13, 14, 17, 18, 21, 22, 25, 26, 34, 39, 40, 43, 44, and 47 have been rejected under 35 U.S.C. § 112, second paragraph. In particular, the Examiner has indicated that the term "aryl" is unclear. In view of the amendment, as suggested by the Examiner, this rejection is now moot. The Examiner has also indicated that the last phrase of each claim should read "or a pharmaceutically acceptable salt or solvate thereof." The claims have been so amended. Claim 34 has now been cancelled. The term "such as" in R<sup>1</sup> has now been deleted. In view of the amendments, the Examiner's rejections are now moot.

Claim 17, 18, 21, 22, 25, 26, 43, and 44 have been objected to under 37 C.F.R. § 1.75 as being a substantial duplicate of each other. Claims 17, 18, 21, 22, 25, and 26 have been cancelled. This objection is now moot.

Claims 1, 2, 17, 18, 21, 22, 25, 26, 39, 40, 43, and 44 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Sianesi, et al.; Dean, et al. (U.S. 5,153,192); Mizuno, et al. (WO 95/18117); May, et al. (WO 95/19981); Masaki, et al. (WO 95/26959); and Mizuno, et al. (U.S. 5,874,429). In view of the amendments and the following remarks, these rejections are now moot. The definition of aryl in claims 1 and 43 has been amended to delete "fused phenyl or" and thus the claims no longer are anticipated by the references.

Claims 2 and 44 have not been so amended because they are not anticipated by the references.

Whereas Applicants' claims are in condition for allowance; notice thereof if respectfully requested.

Respectfully submitted,

Date

Nov 23, 2002

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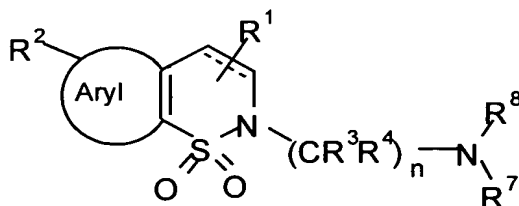
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PATENT TRADEMARK OFFICE

Attorney Docket No: 1700F US

**37 C.F.R. 1.121(c)(1)(ii) "MARKED-UP" VERSION OF CLAIMS:**

1. (Twice Amended) A compound of the formula:



Wherein the dashed bond represents a single or double bond;

Aryl signifies a [fused phenyl or] monocyclic heteroaromatic ring selected from the group consisting of thiophene, furan, pyrrole, pyridine, pyrimidine, pyridazine, and pyrazine;

R¹ is H, OH, OC<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkyl substituted optionally with OH, or OC<sub>1-3</sub>alkyl;

R² is H, halogen, C<sub>1-3</sub>alkyl, CONR<sup>5</sup>R<sup>6</sup>, S(=O)<sub>m</sub>C<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl substituted optionally with OH, or OC<sub>1-3</sub>alkyl;

R³, R⁴ are independently H, C<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl substituted optionally with OH or OC<sub>1-3</sub>alkyl;

R⁵, R⁶ are independently H, C<sub>1-3</sub>alkyl, or C<sub>2-3</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, or R⁵ and R⁶ can be joined together with saturated carbon atoms to form a 5 or 6 membered ring and said carbon atoms can be either unsubstituted or substituted optionally with C<sub>1-3</sub>alkyl, C<sub>2-3</sub>alkyl substituted optionally with OH or OC<sub>1-3</sub>alkyl;

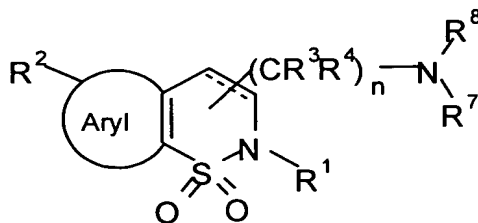
R⁷, R⁸ are together with the nitrogen atom to which they are attached incorporated into a heterocyclic ring selected from the group consisting of pyrrolidine, piperidine, Δ³-piperidine, piperazine, morpholine or thiomorpholine which can be unsubstituted or substituted on carbon with one or more substituents optionally selected from C<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, or phenyl which can be unsubstituted or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl, or substituted on nitrogen with C<sub>1-4</sub>alkoxy or phenyl which can be unsubstituted or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl;

n is 2 to 4;

m is 0, 1 or 2

and any pharmaceutically acceptable salt[s] or solvate[s] thereof.

2. (Twice Amended) A compound of the formula:



Wherein the dashed bond represents a single or double bond;

Aryl signifies a fused phenyl or monocyclic heteroaromatic ring;

R¹ is H, C<sub>1-5</sub>alkyl, C<sub>3-5</sub>alkenyl, an aromatic ring [such as] selected from the group consisting of phenyl, thienyl, pyridyl, and imidazolyl which is either unsubstituted or substituted optionally with OH, OC<sub>1-3</sub>alkyl, S(=O)<sub>m</sub>C<sub>1-3</sub>alkyl, halogen, or CF<sub>3</sub>; or C<sub>2-5</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, S(=O)<sub>m</sub>C<sub>1-3</sub>alkyl or an aromatic ring such as phenyl, thienyl, pyridyl, and imidazolyl which is either unsubstituted or substituted optionally with OH, OC<sub>1-3</sub>alkyl, S(=O)<sub>m</sub>C<sub>1-3</sub>alkyl, halogen, CF<sub>3</sub>, S(=O)<sub>2</sub>NR<sup>5</sup>R<sup>6</sup>; or C<sub>3-5</sub>alkenyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, or S(=O)<sub>m</sub>C<sub>1-3</sub>alkyl;

R² is H, halogen, C<sub>1-3</sub>alkyl, S(=O)<sub>m</sub>C<sub>1-3</sub>alkyl, S(=O)<sub>2</sub>NR<sup>5</sup>R<sup>6</sup>, or C<sub>1-3</sub>alkyl substituted optionally with OH, or OC<sub>1-3</sub>alkyl;

R³ & R⁴ are independently H, C<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl substituted optionally with OH or OC<sub>1-3</sub>alkyl;

R⁵, R⁶ are independently H, C<sub>1-3</sub>alkyl, or C<sub>2-3</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, or R⁵ and R⁶ can be joined together with saturated carbon atoms to form a 5 or 6 membered ring and said carbon atoms can be either unsubstituted or substituted optionally with C<sub>1-3</sub>alkyl, C<sub>2-3</sub>alkyl substituted optionally with OH or OC<sub>1-3</sub>alkyl;

R⁷, R⁸ are together with the nitrogen atom to which they are attached incorporated into a heterocyclic ring selected from the group consisting of pyrrolidine, piperidine, Δ³-piperidine, piperazine, morpholine or thiomorpholine which can be unsubstituted or

substituted on carbon with one or more substituents optionally selected from C<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, or phenyl which can be unsubstituted or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl, or substituted on nitrogen with C<sub>1-4</sub>alkoxy or phenyl which can be unsubstituted or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl;

n is 2 to 4;

m is 0, 1 or 2

and any pharmaceutically acceptable salt[s] or solvate[s] thereof.

17. Cancelled.

18. Cancelled.

21. Cancelled.

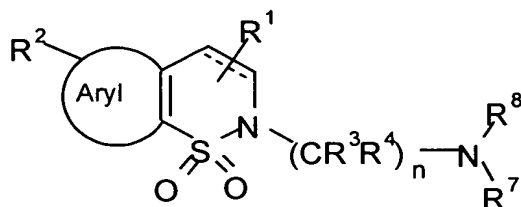
22. Cancelled.

25. Cancelled.

26. Cancelled.

34. Cancelled.

43. (Twice Amended) A composition comprising a pharmaceutically effective amount of a compound of the formula:



Wherein the dashed bond represents a single or double bond;

Aryl signifies a [fused phenyl or] monocyclic heteroaromatic ring selected from the group consisting of thiophene, furan, pyrrole, pyridine, pyrimidine, pyridazine, and pyrazine;

R<sup>1</sup> is H, OH, OC<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkyl substituted optionally with OH, or OC<sub>1-3</sub>alkyl;

R<sup>2</sup> is H, halogen, C<sub>1-3</sub>alkyl, CONR<sup>5</sup>R<sup>6</sup>, S(=O)<sub>m</sub>C<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl substituted optionally with OH, or OC<sub>1-3</sub>alkyl;

R<sup>3</sup>, R<sup>4</sup> are independently H, C<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl substituted optionally with OH or OC<sub>1-3</sub>alkyl;

R<sup>5</sup>, R<sup>6</sup> are independently H, C<sub>1-3</sub>alkyl, or C<sub>2-3</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, or R<sup>5</sup> and R<sup>6</sup> can be joined together with saturated carbon atoms to form a 5 or 6 membered ring and said carbon atoms can be either unsubstituted or substituted optionally with C<sub>1-3</sub>alkyl, C<sub>2-3</sub>alkyl substituted optionally with OH or OC<sub>1-3</sub>alkyl;

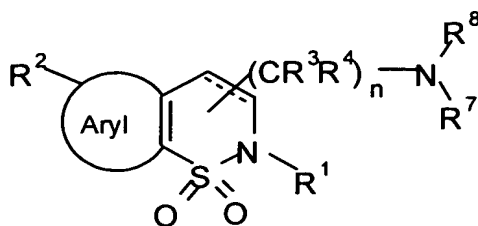
R<sup>7</sup>, R<sup>8</sup> are together with the nitrogen atom to which they are attached incorporated into a heterocyclic ring selected from the group consisting of pyrrolidine, piperidine, Δ<sup>3</sup>-piperidine, piperazine, morpholine or thiomorpholine which can be unsubstituted or substituted on carbon with one or more substituents optionally selected from C<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, or phenyl which can be unsubstituted or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl, or substituted on nitrogen with C<sub>1-4</sub>alkoxy or phenyl which can be unsubstituted or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl;

n is 2 to 4;

m is 0, 1 or 2

and any pharmaceutically acceptable salt[s] or solvate[s] thereof in a pharmaceutically acceptable carrier.

44. (Twice Amended) A composition comprising a pharmaceutically effective amount of a compound of the formula:



Wherein the dashed bond represents a single or double bond;

Aryl signifies a fused phenyl or monocyclic heteroaromatic ring;

R<sup>1</sup> is H, C<sub>1-5</sub>alkyl, C<sub>3-5</sub>alkenyl, an aromatic ring [such as] selected from the group consisting of phenyl, thienyl, pyridyl, and imidazolyl which is either unsubstituted or substituted optionally with OH, OC<sub>1-3</sub>alkyl, S(=O)<sub>m</sub>C<sub>1-3</sub>alkyl, halogen, or CF<sub>3</sub>, or S(=O)<sub>2</sub>NR<sup>5</sup>R<sup>6</sup>]; or C<sub>2-5</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, S(=O)<sub>m</sub>C<sub>1-3</sub>alkyl or an aromatic ring such as phenyl, thienyl, pyridyl, and imidazolyl which is either unsubstituted or substituted optionally with OH, OC<sub>1-3</sub>alkyl, S(=O)<sub>m</sub>C<sub>1-3</sub>alkyl, halogen, CF<sub>3</sub>, S(=O)<sub>2</sub>NR<sup>5</sup>R<sup>6</sup>; or C<sub>3-5</sub>alkenyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, or S(=O)<sub>m</sub>C<sub>1-3</sub>alkyl;

R<sup>2</sup> is H, halogen, C<sub>1-3</sub>alkyl, S(=O)<sub>m</sub>C<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl substituted optionally with OH, or OC<sub>1-3</sub>alkyl;

R<sup>3</sup> & R<sup>4</sup> are independently H, C<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl substituted optionally with OH or OC<sub>1-3</sub>alkyl;

R<sup>5</sup>, R<sup>6</sup> are independently H, C<sub>1-3</sub>alkyl, or C<sub>2-3</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, or R<sup>5</sup> and R<sup>6</sup> can be joined together with saturated carbon atoms to form a 5 or 6 membered ring and said carbon atoms can be either unsubstituted or substituted optionally with C<sub>1-3</sub>alkyl, C<sub>2-3</sub>alkyl substituted optionally with OH or OC<sub>1-3</sub>alkyl;

R<sup>7</sup>, R<sup>8</sup> are together with the nitrogen atom to which they are attached incorporated into a heterocyclic ring selected from the group consisting of pyrrolidine, piperidine, Δ<sup>3</sup>-piperidine, piperazine, morpholine or thiomorpholine which can be unsubstituted or substituted on carbon with one or more substituents optionally selected from C<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl substituted optionally with OH, OC<sub>1-3</sub>alkyl, or phenyl which can be unsubstituted or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl, or substituted on nitrogen with C<sub>1-4</sub>alkoxy or phenyl which can be unsubstituted or substituted optionally with halogen, CF<sub>3</sub>, OC<sub>1-3</sub>alkyl, or C<sub>1-3</sub>alkyl;

n is 2 to 4;

m is 0, 1 or 2

and any pharmaceutically acceptable salt[s] or solvate[s] thereof in a pharmaceutically acceptable carrier.